

## Step #5: Welcome diversity.

If you have a lot of different plants above ground, you will end up with greater microbial diversity below ground. Different plants tend to attract and nurture different sets of soil microbes.

Why is microbial diversity important?

First, you want your soil workforce to include lots of “specialists”. These are microbes that are really, really good at specific tasks, such as protecting your plants from certain diseases. The more diversity you have in your soil, the more likely it will be that your plant can find the right microbial partner when it needs help to fight off a pest or disease.

Second, you want your underground workforce to be resilient. Having microbial diversity allows the soil to host microbes that contribute valuable functions, but under different conditions. One group might work at high temperatures but go dormant at lower temperatures. If you have good diversity, there will always have the right microbe for the right set of conditions. That way, your underground workforce is producing results for you and your plants no matter what the weather brings.

Here are some tips to achieve microbial diversity :

- Rotate your plantings of annuals. Rotating your plants breaks up the disease cycle and also brings new types of organisms to the area each year, keeping diversity levels high.
- Use compost. Well-made, mature compost is full of all sorts of beneficial microbes. In fact, this is perhaps compost’s greatest strength. Adding compost yearly refreshes the pool of microbial “experts” in your soil, so that your plants have a deep pool of potential partners to draw on whenever the need arises.
- Have some perennials in your garden. Perennials feed microbes all year long, even in winter, which helps to maintain diversity and overall soil health.
- Use native species. Native plant species will naturally encourage the development of a microbial community that is both diverse and well suited for your lawn and garden environment.
- Have pollinator-friendly plants in your mix. They will add to the overall health of your lawn and garden ecosystem, plus add their own underground workforce specialists to the soil.

